WHAT IS CLAIMED IS:

1. A coordinate input apparatus which detects three-dimensional position coordinates of an indicating tool used in combination with a display for displaying a window based on two-dimensional coordinates, comprising:

storage means for storing a set of coordinate values of a plurality of points for defining a coordinate input area in an arbitrary space;

determination means for determining whether a three-dimensional coordinate value as position coordinates of the indicating tool belongs to the coordinate input area defined by the set of coordinate values stored in said storage means; and

conversion means for converting the three-dimensional coordinates of the indicating tool into a two-dimensional coordinate value corresponding to the display window on the basis of the determination result obtained by said determination means.

2. The apparatus according to claim 1, wherein said storage means stores a set of coordinate values of a plurality of points for defining each coordinate area for each of a plurality of types of coordinate input areas.

3. The apparatus according to claim 1, wherein said storage means further stores switch information indicating coordinate input operation of the indicating tool for each of the coordinate input areas.

4. The apparatus according to claim 1, wherein said

storage means further stores a definition table for defining operation of executing predetermined processing corresponding to operation of a mouse with respect to a plurality of switches of the coordinate input area and the indicating tool.

5. A control method for a coordinate input apparatus which detects three-dimensional position coordinates of an indicating tool used in combination with a display for displaying a window based on two-dimensional coordinates, comprising:

the storage step of storing, in a storage medium, a set of coordinate values of a plurality of points for defining a coordinate input area in an arbitrary space;

the determination step of determining whether a three-dimensional coordinate value as position coordinates of the indicating tool belongs to the coordinate input area defined by the set of coordinate values stored in the storage medium; and

the conversion step of converting the three-dimensional coordinates of the indicating tool into a two-dimensional coordinate value corresponding to the display window on the basis of the determination result obtained in the determination step.

6. The method according to claim 5, wherein, in the storage step, a set of coordinate values of a plurality of points for defining each coordinate area for each of a plurality of types of coordinate input areas is stored in

the storage medium.

7. The method according to claim 5, wherein, in the storage step, switch information indicating coordinate input operation of the indicating tool for each of the coordinate input areas is further stored in the storage medium.

8. The method according to claim 5, wherein, in the storage step, a definition table for defining operation of executing predetermined processing corresponding to operation of a mouse is further stored in the storage medium with respect to a plurality of switches of the coordinate input area and the indicating tool.

9. A computer-readable memory storing a program code for controlling a coordinate input apparatus which detects three-dimensional position coordinates of an indicating tool used in combination with a display for displaying a window based on two-dimensional coordinates, wherein the program code includes:

a program code for the storage step of storing, in a storage medium, a set of coordinate values of a plurality of points for defining a coordinate input area in an arbitrary space;

a program code for the determination step of determining whether a three-dimensional coordinate value as position coordinates of the indicating tool belongs to the coordinate input area defined by the set of coordinate values stored in the storage medium; and

a program code for the conversion step of converting the three-dimensional coordinates of the indicating tool into a two-dimensional coordinate value corresponding to the display window on the basis of the determination result obtained in the determination step.